


PTO/SB/08A (10-01)  
Approved for use through 10/31/2002. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE  
to respond to a collection of information unless it contains a valid OMB control number.

*(use as many sheets as necessary)*

Application Number	09/966,482
Filing Date	Sep. 28, 2001
First Named Inventor	Wang, Ye et al
Group Art Unit	2654
Examiner Name	TBD
Attorney Docket Number	004770.00023

Examiner Initials *	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
	A	US-6,125,348	09-26-2000	Levine	
	B	US- 5,928,330	07-27-1999	Goetz et al.	
	C	US- 5,841,979	11-24-1998	Schulhof et al.	
	D	US- 5,636,276	06-03-1997	Brugger	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

RECEIVED

OCT 18 2000

Technology Center

RECEIVED

OCT 18 2002

Technology Center 2600

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				
82	E	EP 0 703 712 A2	03-27-1996	C-Cube Microsystems		

Date Considered

<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

2


of

2

**Complete if Known**

Application Number	09/966,482
Filing Date	Seep. 28, 2001
First Named Inventor	Wang et al.
Group Art Unit	2133
Examiner Name	TBD
Attorney Docket Number	004770.00023

**OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	F	BOSSE, Modified Discrete Cosine Transform (MDCT), March 7, 1998, available at <a href="http://ccma-www.stanford.edu/~bosse/proj/node27.html">http://ccma-www.stanford.edu/~bosse/proj/node27.html</a>	
	G	FRAUNHOFER, MPEG Audio Layer-3, available at <a href="http://www.iis.fhg.de/amm/techinf/layer3/index.html">http://www.iis.fhg.de/amm/techinf/layer3/index.html</a>	
	H	WCDMAN - the wideband 'radio pipe' for 3G services, September 17, 1999, available at <a href="http://www.ericsson.com/wireless/productsys/gsm/subpages/umts_and_3g/wcdman.shtml">http://www.ericsson.com/wireless/productsys/gsm/subpages/umts_and_3g/wcdman.shtml</a>	
	I	GSM Frequently Asked Questions, October 23, 2000, available at <a href="http://www.gsmworld.com/technology/faw.html">http://www.gsmworld.com/technology/faw.html</a>	
	J	PERKINS, HODSON, Options for Repair of Streaming Media, Network Working Group RFC 2354, The Internet Society, June 1998.	
	K	GOTO & HAYAMIZU, A Real-time Music Scene Description System: Detecting Melody and Bass Lines in Audio Signals, August 1999, Working Notes of the ICAI-99 Workshop on Computational Auditory Scene Analysis, p. 31-40.	

**RECEIVED**

OCT 18 2002

Technology Center 2600

Examiner  
SignatureDate  
Considered

12/6/02

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number (optional): \* Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



PTO-1449 (Modified)  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  INFORMATION DISCLOSURE STATEMENT BY APPLICANT	ATTY. DOCKET NO. 004770.00023	SERIAL NUMBER 09/966,482
	APPLICANT Ye Wang	
	FILING DATE September 28, 2001	GROUP ART UNIT 2654

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
	197 36 669	10/22/98	DE	1	1	
	1 207 519	5/22/02	EPO	1	1	

RECEIVED  
SEP 24 2002  
Technology Center 2600

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Search Report
	Y. Wang et al., "On The Relationship Between MDCT, SDFT And DFT", WCC 2000 - ISCP 2000, August 21-25, 2000, pages 44-47
	Y. Wang et al., "A Compressed Domain Beat Detector Using MP3 Audio Bitstreams", Proceedings Of The ACM International Multimedia Conference And Exhibition 2001, ACM Multimedia 2001 Workshops, September 30, 2001, pages 194-202
	Y. Wang, "A Beat-Pattern based Error Concealment Scheme for Music Delivery with Burst Packet Loss", 2001 IEEE International Conference on Multimedia and Expo, ICME 2001, August 22-25, 2001, pages 73-76

EXAMINER	DATE CONSIDERED 12/6/04
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	

IDS w/1449 form filed: September 18, 2002

FORM PTO-1449  
(Rev. 2-32)

U.S. Department of Commerce  
Patent and Trademark Office

Atty. Docket No.

Serial No.

004770.00023

09/966,487

Applicant:

Ye Wang et al

Filing Date:

September 28, 2001

Group:

2133



**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use several sheets if necessary)

**RECEIVED**  
MAY 03 2002  
Technology Center 2100

**U.S. PATENT DOCUMENTS**

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	5,148,487	09/15/1992	Nagai et al			
	5,579,430	11/26/1996	Grill et al			
	5,852,805	12/22/1998	Hiratsuka et al			

**RECEIVED**  
JUN 28 2002

**FOREIGN PATENT DOCUMENTS**


Technology Center 2800

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	0 718 982 A2	06/26/1996	EP				
	98/13965	04/02/1998	WO				

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).**

1	HERRE, et al, Evaluation of Concealment Techniques for compressed Digital Audio, Audio Engineering Society Preprint, March 16 - 19, 1993, Preprint 3460 (A1-4), Erlangen, Germany
2	BOLOT et al, Analysis of Audio Packet Loss in the Internet, Proc. Of 5 <sup>th</sup> Int. Workshop on Network and Operating System Support for Digital, Audio and Video, pp. 163-174, Durham, April 1995
3	International Standard ISO/IEC, Information Technology - Coding of Moving Pictures and Associated Audio for Digital Storage Media at up to About 1.5 Mbit/s - Part 3, Audio Technical Corrigendum 1, Published 1996-04-15
4	STENGER et al, A New Error Concealment Technique for Audio Transmission with Packet Loss, Telecommunications Institute, University of Erlangen-Nuremberg, Cauerstrasse 7, 91058 Erlangen, Germany, Eusipco 1996
5	McKINLEY et al, Experimental Evaluation of Forward Error Correction on Multicast Audio Streams in Wireless LANs, Department of Computer Science and Engineering, Michigan State University, East Lansing, Michigan.48824, pp. 1 - 10, Copyright 2000 ACM
6	NISHIHARA et al, A Practical Query-By-Humming System for a Large Music Database, NTT Laboratores, 1 - 1 Hikinooka, Yokosuka-shi, Kanagawa, 239-0847, Japan pp. 1 - 38
7	WANG, Y., Vilermo, M., Isherwood, D. "The Impact of the Relationship Between MDCT and DFT on Audio Compression: A Step Towards Solvign the Mismatch", the First IEEE Pacific-Rim Conference on Multimedia (IEEE-PCM2000), December 13 - 15, 2000, Sydney, Australia, pp. 130 - 138
8	PERKINS, C., Hodson, O., Hardman, V., "A Survey of Packet-loss Recovery Techniques for Streaming Audio," IEEE Network, Sept/Oct. 1998.
9	ETSI Rec. GSM 6.11, "Substitution and Muting of Lost Frames for Full Rate Speech Signals," 1992
10	GOODMAN, O.J. et al., "Waveform Substitution Techniques for Recovering Missing Speech Segments in Packet Voice Communications," IEEE Trans. Acoustics, Speech, and Sig. Processing, vol. ASSP-34, no. 6, Dec. 1986, pp. 1440-1448

11	WASEM, O.J. et al, "The Effects of Waveform Substitution on the Quality of PCM Packet Communications," IEEE Trans. Acoustics, Speech, and Sig. Processing, vol. 36 no. 3, March 1988, pp. 342 - 348
12	SANNECK, H. et al., "A New Technique for Audio Packet Loss Concealment," IEEE Global Internet 1996, Dec. 1996 pp. 48 - 52
13	CHEN, Y.L. Chen, B.S., "Model-based Multirate Representation of Speech Signals and its Application to Recovery of Missing Speech Packets," IEEE Trans. Speech and Audio Processing, vol. 15, no. 3, May 1997, pp. 220 - 231

EXAMINER	DATE CONSIDERED
	12/6/04

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication

**RECEIVED**

MAY 03 2002

Technology Center 2100

**RECEIVED**

JUN 28 2002

**Technology Center 2600**